DOCUMENT RESUME

ED 306 541 CS 009 638

AUTHOR Biggins, Catherine M.; Sainz, JoAnn
TITLE Freshman Experience: The Needs of the Least Educated: How To Meet Their Problems and Help Them Persevere in Their College Program.
PUB DATE Apr 89
NOTE 26p.; Paper presented at the Northeast Regional Meeting of the Freshman Year Experience and Beyond: Foundations for Improving the Undergraduate Experience (White Plains, NY, April 1989).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070) -- Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *College Freshmen; Higher Education; Illiteracy; *Learning Disabilities; Potential Dropouts; *Reading Difficulties; Reading Instruction; Reading Research; Reading Skills; *Reading Strategies; Theory Practice Relationship

ABSTRACT

Many functionally illiterate freshmen feel helpless in the face of their inability to learn to read at a competent level. College freshmen who drop out because of this disability are losers who suffer tremendous disadvantages when they leave college without earning a diploma. Possible causes of functional illiteracy hindering the least educated freshman are identified as inadequate self-concept, lack of mentation, non-use of the cognitive powers that students possess, and lack of attention. Great care must be exercised with the retarded reader that extraneous materials not be permitted to come between the stimulus and the response. The teacher must make certain that the tasks are interesting, relevant, and varied and that the students are motivated to engage in them. Teachers are most effective when they allow more time for reading, proportion work time, closely monitor pupils' efforts to ensure continued engagement, provide for frequent repetition, and drill to overlearning. Educators must find and implement ways to promote broad personal and social development as well as functional literacy skills and knowledge. (Fifty-seven footnotes are included.) (MM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED306541

FRESHMAN EXPERIENCE: THE NEEDS OF THE LEAST EDUCATED. HOW TO MEET THEIR PROBLEMS AND HELP THEM PERSEVERE IN THEIR COLLEGE PROGRAM

Catherine M. Biggins, Ed.D
Adjunct Professor
Hostos Community College/CUNY
English Department
Bronx, New York
and
Education Specialist
Catholic Guardian Society
New York, New York

JOAnn Sainz, Ph.D.
Executive Assistant to the President
Hostos Community College/CUNY
Bronx, New York

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Catherine Biggins

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Paper presented at Regional Meeting-Northeast: The Freshman Year Experience and Beyond: Foundations for Improving the Undergraduate Experience, White Plains, New York, April, 1989.

CS009638

BEST COPY AVAILABLE

Problem:

It is apparent to the authors that each category--concept formation, language acquisition, comprehension, and word identification--impinge one upon the other. The fact is that there are freshmen who find themselves not possessing even the basic skills to enable them to successfully complete a college program.

To understand the needs of the least educated freshman population, it is helpful to review some statistical studies. Dale Mann (1985) reported that grade retention and age upon entering 9th grade are both strongly related to dropping out.[1] Sudzina (1987) found that dropouts with test scores in the middle to top of the test score distribution of drop-outs are two to three times more likely to return to school than those who score lowest on ability tests. Among those who went back to traditional classrooms, about 40% left school again, becoming in effect "double drop-outs."[2] Morgan (1984) reported that 1% of drop-outs eventually drop back in; 6% of all drop-outs get their GED. Ninety percent of that group go on to post-secondary education.[3] These are dismal statistics indeed. Many of the 90% of the 6% of the drop-outs getting their GED find themselves in danger of not completing their college program.

Drop-outs in our communities are under-educated with bleak prospects for success in the labor market, facing lifelong problems of unemplyment and welfare dependency. Catterall (1985) put the loss in adjusted lifetime earnings for a male drop-out at $187,000, and for female drop-out at $122,000. For the nation, the cost of dropping out reaches into billions in the form of lost tax revenue, welfare and unemployment expenditures and crime prevention funds.[4]

Basic skills abilities, including literacy, are the single best predictor of drop-out behavior. This conclusion is based on the analysis of the findings

by the National Longitudinal Survey (NLS) which show that a majority (50.3%) of all drop-outs had basic skills in the bottom 20% of the test score distribution.[5] How much of the problem is language and how much is poverty and other factors effecting the disadvantaged? Nobody knows for certain whether reading ability is the determining factor explaining higher drop-out rates among Hispanics compared with other at-risk populations, but clearly, reading ability is a critical element in achieving success in college and outside.

Many functionally illiterate freshmen feel helpless in the face of their inability to learn to read at a competent level. College freshmen who drop out because of this disability are losers who suffer tremendous disadvantages when they leave college without earning a diploma as an increasingly sophisticated world leaves them farther and farther behind. The Bureau of Labor Statistics projects that most growth in occupational employment will be in high level service occupations requiring a higher degree of education.[6]

There is little doubt that those who have suffered with reading disabilities over any substantial period of time are going to have serious questions about themselves and their abilities. The freshman who cannot read is deprived of an essential means for widening his or her interests, satisfying his or her needs for exploring new experiences and, in leisure time, promoting his or her emotional and social adjustment.

<u>What does reading ability entail?</u>

The skilled reader can comprehend the meaning of a passage. He can recognize that which the author specifically stated in the paragraph; he can compare, describe, define, clarify, recognize relationships; he can recognize forms of exposition and arguement. Every person, including the learning

disabled freshman, engages in this type of oral-aural communication every day.

The skilled reader has the ability to predict outcomes, going beyond what is stated. Such prediction provides the person with background needed to solve problems and to critically evaluate from the content and the context of the passage. He or she can answer such questions as--What will happen because of...., --In case this should happen to us, we must be prepared to....--to act responsibly. The least educated freshman also uses these powers of prediction in everyday life.

The skilled reader has knowledge of social rules and expectations, ability to pick out missing significant details in familiar situations and in non-verbal social awareness. The skilled reader strengthens verbal concept formation and perceptual ability through gaining information about the world in its verbal and non-verbal arrangment. The least educated freshman has a fund of named concepts in repertoire, as well.

The skilled reader engages in interpretive comprehension involving the recognition of the many alternatives which the author might have meant although the author did not state them specifically; the skilled reader draws upon background information and experience and value systems, and organizes the culled information to demonstrate relatedness to text which is specifically stated or implied in the selection, justifying evaluation and judgments, and formulating appreciations and values. The least educated freshman, too, recognizes that there can be more than one answer to a given situation.

The skilled reader separates facts from opinions, draws conclusions, predicts outcomes, interprets words and phrases in context. The least educated freshman does all of these things. The foreign element that is present in the reading situation, and which proves a handicap to the least

educated freshman, is that the skilled reader can use these communication skills through the medium of print while the least educated freshman cannot.

The reader extracts meaning from what is read not only on the basis of visual information, the surface structure of the language, but also on the basis of the deep language structure, knowledge and experience recorded within the brain. Language and sounds read cannot be comprehended unless the reader makes this critical, active contribution. According to Smith (1975) cognition organizes all incoming sensory data into a meaningful pattern.[7]

Perceptual learning can be separated into three stages, the first stage being the feature discovery and the second and third stages dealing with utilization in feature discovery. The perceptual system must become sensitive to those aspects or features of sensory patterns which distinguish one word from another.[8]

The cognitive model of learning perceives the learner as a consumer of information. Logical operations transform the physical aspect of personal experience into rules that reflect propositional logic. Piaget calls this changing or transforming over time interiorization. It consists of two components: classification or categorization of events, as members of a set or category within the scope of the variable, and the procedure applied to each member treated equivalently. Piaget (976)[9] and Bruner (1983)[10] theorized that the person, in building reading ability, goes through consecutive stages of thought development, each of which incorporates the precision of the preceding stage into a more complex and hierarchical integral form of adaptation. According to Piaget, the freshman must be able to detect perceptual differences, perceive likenesses and differences, remember word forms, and associate symbols with pictures and objects.

Rule development, a procedure applied to a variable, governs the behavior which activates the experiences and helps to take the burden off the memory. Changes in the individual's cognitive structure, such as developing reading ability and mastery, materialize as a function of specific identifiable events facilitated through rule development.

Piaget theorized that long-term memory has three dimensions: (1) episodic or personal memory and semantic memory, or the abstraction of rules from personal memory; (2) conceptual data hierarchy and (3) stratification construct which includes production, retrieving and using of these hierarchies in the organizing framework of schemata.

Knowledge, the active transformation of experiences, arises out of the interaction between stimuli and process; seeing a word and reacting to it. The contribution of the process sorter brings a variety of capacities and strategies to the task of making sense out of the stimuli, objects, and events of the world which impact on consciousness.

Metamemory develops through something analagous to reflective, abstractive processes. In this process the person abstracts and permanently incorporates into cognitive structure general observations or regularities concerning the properties of one's own action on the environment as contrasted with knowledge about the environment itself devised from visible abstraction.[11]

Introducing the skill of word decoding is only half the process. After the decoding skills has been introduced, the word must be practiced in meaningful contexts until the word becomes part of the learned repertoire and supports the reading act. Poor memory can prevent mastering of the word to an automatic level. A reader lacking fluency, that is, the ability to recall words instantaneously, will be stuck at a level of attending to the mechanics of reading and further comprehension training is unlikely to

have any value.

The importance of minimizing incorrect responses has been stressed in behavioral literature. A different tack in training early perceptual skills necessary for reading involve those of extended discrimination practice. To prevent or solve word recognition problems in the least educated student, proper conceptualization is essential.

Attention, the activation added to a structure which facilitates processing information to that structure, and attitude, a judgment of a person on an object or concept along an evaluative dimension, enter the process of developing cognition. Harris (1977) held that comprehension of language was often acquired through a set of procedures closely tied to the structures and content of the linguistic data.[12]

Although, at first, the least educated freshman might be unable to read words in the text, the ability to read information presented pictorially and in graphs and diagrams is present. Reading is the process of constructing meaning through the dynamic interacton of the reader, the text, and the content of the reading situation.[13] Wixson and Peters argue that skills are a "means to an end, rather than an end unto themselves."[14]

Constraints on reading instruction

Skilled reading, the Commission on Reading explained, is "constructive, fluent, strategic, motivated, and a lifelong pursuit." Included in the basic reading proficiencies of a skilled reader are the ability to read aloud unfamiliar but grade-appropriate materials with acceptable fluency, write satisfactory summaries of unfamiliar selections from grade-appropriate social studies and science textbooks; explain the plots and motives of characters in unfamiliar grade-appropriate selections; read extensively from books, magazines, and newspapers during leisure time.[15]

Doehring (1968) found in his study of 39 disabled readers that deficiency in sequential processing abilities, both visual and verbal, were intrinsically associated with reading disability.[16] Still, the least educated freshman is faced with the fact that 220 words in the Dolch basic sight word list represent approximately 60% of words in primary grade materials.[17] Before he can even hope to do any meaningful reading on a higher level, he must master a long list of words on the primary level. The disabled reader exhibits low learning efficiency and achieves a verbal I.Q. score that tends to be significantly below the performance I.Q. Poor memory for sequencing is evident with thinking on a concrete rather than on an abstract level and difficulty remembering what is read. Recognition and speaking vocabulary is small for age and achievement on overall reading score is substantially below grade level.[18]

There are no comparable data at the higher education level, since it has been presumed up to this time that students at the higher education level have mastered word decoding. The fact that least educated freshmen are experiencing word decoding problems proves that what we have believed to be evident is not the case in actuality.

Word identification refers to the ability to develop a visual memory of a word not previously encountered or learned. This skill implies that the pupil can say the spoken word that the printed word represents and that the pupil can hear the word in inner speech in silent reading (Harris, 1977).[19] It is hoped that the learner will eventually commit the word so well to memory that response to it is made spontaneoulsy. Effortless reading depends on having a vast store of words that are recognized by sight. This requires a certain amount of sophistication not possesed by the poor reader.

In the act of reading, the student is required to locate or identify

explicitly statements in the reading selection itself or in exercises that use explicit content of the reading selections. The major source of sight words for less-handicapped readers is the material they have to read found in text books or other books written at their level. The sight words and vocabulary is specific to fields of science, social studies, and other content subject areas.[21] Needless to say, as words increase in length or decrease in frequency, they become more difficult. The memory load that is created by having to learn hundreds of new and ever less discriminable words quickly becomes excessive. Vocabulary difficulty correlates high among reading comprehension and intelligence measures.[22]

The basic level of abstraction can be formalized in terms of cue validity or in terms of set theory of representation of similarity. The significance of cues in learning is that cues help emphasize important stimuli. Traditionally, the teacher must discover when to use proper cues and how much guidance to give the learner. The extent of modifiability and amount of teaching investment necessary to bring about the change is assessed in part by measuring the student's capacity first to grasp and then to apply the skills to a variety of tasks in the field of literacy progressively less distinct from the ones on which the principles were taught, and by measuring the amount of explanation and training investment required in order to produce the desired result. Ability to deal with quantitative relationships and concepts or to think critically is limited in the least educated freshman with concomitant inabiltiy to label experiences, ideas and objects. Skill at making the association required for learning is stilted because of inability to associate experiences and meanings with symbols.[23]

Other possible causes of functional illiteracy hindering the least educated freshman are identified as inadequate self concept, lack of mentation, non-use of the cognitive powers that the student possesses and

lack of attention. Attitude accompanying features are distractibility and impulsivity. There is high variability of rate of identificaton of readng cues from person to person because of high variability in number of questions required and speed of identification.[24]

Great care must be exercised with the retarded reader, that extraneous materials not be permitted to come between the stimulus and the response. The teaching must be done so that, when the response is made, it is made to the proper stimulus and not to any of many other possible stimuli that might have intervened. This goal is relatively difficult to attain in the case of the reading disabled, since the learner, in building reading ability, must go through consecutive stages of thought development, each one incorporating the precision of the preceding stage into a more complex and hierarchical integral form of adaptation.

Here is where the word recognition process suffers from many interferences used in traditional pedagogy. The process underlying this judgment has been labelled differentiation by Gibson (1975), and is the cornerstone of her theory of perceptual learning.[25]

The teacher must make certain that the tasks are interesting, relevant, and varied and that the students are motivated to engage in them. Teachers are most effective when they allow more time to reading, proportion work time, closely monitor pupils' efforts to ensure continued engagement, provide for frequent repetition, and drill to overlearning (Smith & Johnson 1976[26]; Carroll & Chall, 1975[27]).

Durkin (1983) maintains that, when a person doesn't recognize the word, that person must have a way to decode the unknown word. The decoding program which teaches this skill, broadly conceived, includes instruction in both phonemic and structural analysis and deals with language elements not only on a sub-word and word level, but also on

levels beyond the word, particularly the phrase, the sentence and the paragraph.[28]

The average reader initially learned to identfy words through the abstraction of a variety of word-identification strategies: configuration cues, morphemic cues, phonic cues, spelling cues, picture cues, semantic and syntactic cues, and the use of the dictionary. In some schools of thought, reading has been conceptualized as the mastery of small, separate, enabling skills resulting in a marked tendency to operationalize skilled reading as the aggregation, rather than an integration of these skills.[29] The Commission on Reading found that skills managemeant systems rested on doubtful assumptions about the process of learning to read, that an over-emphasis on skills unbalances the reading program, resulting in an extraordinary amount of time devoted to workbooks and skill sheet exercises, and led attention away from the integrated act of reading.[30] Goodlad criticized this process, finding that reading instruction in American schools emphasized "the mechanics of word recognition, phonics and vocabulary development" through the use of work sheets and textbooks.[31] Bussis & Chittendon (1987) of the Educational Testing Service caution that "linguistic knowledge in and of itself, such as knowledge of letter-sound correspondences, of phonic rules, of word meanings, is in no way tantamount to the skill of reading."[32]

These studies caution against repetitive remediation efforts in low-level basic skills and lower vocational training. The reason for this is clear: acquiring these skills holds out so little promise of a rewarding future that a life on the street or on welfare seems preferable.

Research in learning style indicate that some students cannot perform such exercises because they do not have the auditory abilities needed to distinguish among similar sounds in words, although they are capable of

learning to read.[33] This conclusion seems improbable upon consideration; if a person could not distinguish among similar sounds in words, that person would not be able to communicate through listening or speaking channels either, since all words would sound the same to the student and there would be no distinguishing features by which this student could mark one word from another. The explanation given by Duane and Money (1969) seems to be more plausible. Their research suggests that poor memory for sounds during association learning is the major cause of difficulty in learning letter-sound associations.[34]

Reed (1985) contends that if the reader cannot recognize a word as a whole word, then the reader must organize a set of sub-abilities at the next lowest level, such as phoneme-grapheme correspondences and blending abilities to sound out and then synthesize the word. He argues that phonics, carefully taught, facilitates reading, making the students independent readers so much sooner.[35] Durkin (1968) pointed out that, since phonics does not offer help with meanings, it is productive only with words already known in their spoken form.[36]

What Learning Theories Say About Word Analysis and Reading

The study of reading failure has a long history. It is extremely difficult to establish clear-cut cause and effect correlations between a cluster of factors which may at times constitute a syndrome that leads to a better diagnosis and clearer remediation. It is generally accepted that learning to read is a continuous, cumulative process and no reading skill is ever wholly learned at one time, but continues to be refined through successive stages of nurturing. The relationship between cognitive style and reading has been examined in terms of underlying information processing strategies in perceptual learning.[37] Perception goes beyond sensations and requires that the pupil must react with meaning.

Perception is one of the earliest stages of processing that takes place on the stimulus input before the information reaches higher cognitive levels where decisions, comprehension, storage, rehearsel, and retrieval operations are performed. Bormuth (1971) pointed out that there was no way to decide just how difficult a passage would be for students whose abilities vary. Moreover, the background, interests, and aspirations of students affect their performance in ways that are not yet measureable. He maintained that comprehension is both one of the most important and one of the weakest areas of instruction.[38]

Unless students are involved in their own learning processes, Ausubel (1964) found, they were likely to have a lack of language skills, meaning not only a limited vocabulary but also a lack of words that extended to a lack of the very thought processes that lie behind languages.[39] Goodman (1978) added that reading need not follow oral development, but may be parrallel to it and contribute to the general language store.[40] Mead (1962) emphasized that thinking develops through verbalizing experiences. The student uses previous experiences to interpret the words of others, which could be in error.[41] Concepts organize information which is not dependent upon the immediate conceptual array and are at least potentially nameable. Without these attributes, concepts do not yet exist. Comprehension involves ability to grasp such concepts as main idea, facts, sequence, inference, and critical thinking.[42]

Sylvester & Kurst (1943) investigated the sociodynamic aspects of reading problems and found them to be anxiety caused by reading failure and inadequate capacity for mastery. The disturbances in reading performance were found to be disturbances of the exploratory functions and symptomatic treatment by pedagogical methods was determined not to be enough. [43]

Motivational Frustrations

Reading failure gives a sense of inadequacy, threatens self esteem and social acceptance, and tends to promote failure. Although the least educated freshman is, at first, motivated to succeed, Stolz (1980) found that motivational and cognitive variables are substantially interdependent. Low motivation, caused by frustration, may be caused by lack of purpose.[44] Graham (1952) using the Wechsler, attributed these differences to emotional factors related to stress.[45]

The short term memory, wherein a small amount of information is retained for a short time, is crippled in the condition of hysteresis, the inability of short term memory coding mechanisms to keep up with the demands placed on them by too much data being presented at one time. The breakdown in the process of short term memory completion adversely affects long-term memory, wherein materials are retrieved much longer after acquisition . The learning disabled reader frequently makes kinetic reversals (mistaking 'b' for 'd'), reads entire words backwards (mistaking 'was' for 'saw'), reverses letters ('flim' for 'film'), confuses sounds (mistaking 'graduate' for 'gratitude'), and has difficulty telling right from left. [46] Penmanship is characterized by poorly formed and irregular cues, untidiness, malalignment, omissions, linkages that are too short or too long, and fusion of letters.[47] Auckerman (1971) found that the child--and how much more serious is the problem for the adult--with primary dyslexia fails to learn to read even when provided with apparently appropriate instruction, comes from a culturally educated home, is properly motivated, has adequate sensory equipment, has normal intelligence, and shows no gross neurological defects or brain pathology.[48]

Pete, a student in a Basic English class at Hostos Community College, spoke of his frustrations in not being able to learn to read although he had

attended school in the United States. He spoke about how this frustration continued to follow him through life until he finally decided to return to school to try again to learn to read at an adequate level.

> Like when I went to school, they pushed me through. I went to 10th grade high school in the U.S. and didn't know how to spell 'cat'. Well, I guess I knew how to spell 'cat,' but not 'rat.' These words I didn't know. I couldn't write them (pointing to his notebook where he had written some vocabulary words). I didn't know none of that. The school was P.S. 263 in Brooklyn. I went to P.S. 66 when I was a child. Also. P.S. 29 in the Red Hook section. They pushed me through the 1st grade, 3rd grade, 4th grade, 5th grade. I went to live in the Brownsville section. Sixth grade, 7th grade--they pushed me--8th grade, high school. And I didn't know nothing. What I would do was to--in one class. when they asked me a question, I would get up and say I had to go to the bathroom, or just leave. They couldn't stop me, so I would walk out the door. Now I've been riding the trains for 37 years. I didn't know how to read, just ride back and forth and get to where I was going and I made a dollar.

Pete explained how he tried to compensate for his inability to read.

> I used to work around that. I used to ask a lot of questions, like 'Inc.'. I didn't know what 'Inc.' meant, incorporation. What did that mean? I didn't know what that meant. Then someone told me 'incorporation' means a group of people, a lot of people who own a company, for reasons, taxwise. Say, if it is a company, you own something, you run out of business. They can take your property away. In a corporation they can't take it. I didn't know what it means, so they told me, this is

what this means. A lot of things, you don't know how to read, you don't know what the book means. They have to tell you all of it.

Pete explained part of his reason for returning to school, after 37 years, to try to learn to read.

They are explaining to you, but you don't know actually what they mean. And then you don't know if they are telling you the truth. Unless,you sit down yourself and understand what you are reading and know what is going on. If I had a lot of money, I wouldn't know how to protect it. I would have to get a lawyer, right? And he is going to take a big chunk out of my money.

He told of how, in the workplace, by being able to camouflage his inability to read, he was able to rise to the position of foreman, but how even this defense mechanism, was beginning to break down.

The people I worked with for twenty years, they didn't know I couldn't read or write. Every job I had, nobody knew. No one knows today. I used to be a foreman. but I learned my work, colors, how to coordinate colors. I stayed there. You have to learn certain things to keep a job. But now it is getting rougher. They have new colors now.

He explained what he expected to accomplish by returning to college.

So I figured if I could do that, match colors, I should be able to do much better with a professional person helping me to learn to read.

Innovation Needed in Reading Instruction

Educators must find and implement ways to promote broad personal

and social development as well as functional literacy skills and knowledge. The Commission on Reading defined reading as the process of constructing meaning from written texts, a complex skill requiring the coordination of a number of inter-related sources of information.[49] In the absence of coordination of the inter-related skills, a lack of involvement and motivation may ensue, which may reflect neuropsychological processing difficulties or problems in emotional health adjustment mechanisms. Motivational problems easily effect ordering and learning by interfering with attention. They produce anxiety, fear, or fantasizing whicn occupy the mental processes and interfere with the reading process. The resulting inattention can be subtle, so that the reading comprehension problem may appear to reflect low intelligence, difficulty discriminating, difficulty relating separate sounds, poor blending and difficulty generalizing.[50]

Rather than contributing to the reading act, do not the variety of word-identificatoin strategies: configuration cues, morphemic cues, phonic cues, spelling cues, picture cues, semantic and syntactic cues, confuse the disabled reader's attempts to read? At the freshman year, the student should possess the ability to decode the 50,000--now 70,000 words, since the development of the technological age--in the abridged dictionary. If the student does not know the word, it would seem that there are only two ways he can learn to recognize the word, either as a sight word, or through a decoding process which he can apply uniformally and universally to the unknown word. It is apparent that, at this stage of physical and mental development, the constraints of the human mind to master a great number of words at one time and the inability to know what words the freshman is going to need to know for a lifetime, to attempt to learn these many words by sight is not a viable alternative. The only other avenue of learning is through a workable decoding system, whereby the freshman will be

enabled to instantly decode an unknown word.

Thorndike (1917) determined that practice is not the sole determinant of learning. The learner also needs to be attentive to the situation and to have a problem-solving attitude. It is well recognized that habits are formed through the repetition of some act, some cue, that sets a motivating condition. Once well-formed, habits no longer need to draw on other motives for energy and acquire their own ability to energize. Interest arises through the interaction of one's basic needs to means used to satisfy them.[51] A little reflection on our part witnesses to the truth of Thorndike's findings. We can tie our shoelace, for instance, without giving the matter a second thought. Yet, if you notice the child trying to learn how to perform this act, you will see the number of trials and errors that it takes to perfect the act, and how many times the act must be repeated until it is reduced to habit. Translating this same habit formation to the variety of word-identification strategies: configuration cues, morphemic cues, phonic cues, spelling cues, picture cues, semantic and syntactic cues, it can be seen that none provide the single stimulus on which the word decoding habit can rest, because these cues are not found constant in every word. Configuration cues change from word to word; morphemic cues differ in every word; each word has its own phonic makeup; each word has its own spelling; picture cues are applicable to only a relatively few words; semantic cues cannot be utilized until the word is decoded; syntactic cues present many exceptions to the general syntactic rule. However, every word contains syllables and vowels also are found in every word, even in the smallest word.

The person who is interested in reading is usually the person for whom reading satisfies the basic needs for self-esteem and esteem of others, curiosity, and the need for success and personal adequacy. These

goals can be addressed after the words in the passage of interest to the reader have been decoded.

Pete, using the cue of syllabication through location of vowels in the word, suggested in the Biggins and Sainz technique[52], expressed himself this way:

> Because my mind is open, even though it's not penetrating directly, I'm getting an idea..even though I know a lot of these words are wrong. I'm getting the sounds and I can read a lot of things on the page that I couldn't read before and I understand it. I can break the word down into syllables and I undertand it.

The method Pete was using to break the words into syllables was based on the methodology suggested by Biggins and Sainz. Following a number of definite non-changing rules, the student determines the number of syllables in the word and blends the syllables together the way they come in the word to arrive at auditory recognition of the word. The non-changing cue identified by Biggins and Sainz is that all words contain syllables; the number of syllables might change from word to word, but all words contain at least one syllable

The method of syllabication was demonstrated by one of the students in the Basic English class.

> Like I said, when I am riding on the train and I see a word I don't know, I decode it, break it down, like Joan [the teacher] taught us. Like this word here. (Jose pointed to the word 'Afghanistan' in the newspaper.) I break the word down by syllables, by counting the vowels: a and a and i and a, 4 syllables.
>
> Jose continued.
>
> "Af. jen is tan. afjenistan?"
>
> The teacher corrected.
>
> "Gh is a 'Silent Consonant' [a term used in the Biggins-Sainz

methodology]. You just hear the hard g.

Jose: afghanistan? Afghanistan? Yeah, I heard that word. It's a country that is fighting against the Russians, right?

Teacher: Yes. So when you see a word you don't know, you can know the number of syllables by counting the number of vowels in the word the way I told you. Then you break up the word according to the sounds.

Jose: Right. That's what we did here. Yeah, you got to get the sounds. It comes. I teach myself for half an hour until I finally get it and it comes. It takes time.

Teacher (reassuringly): The first time it takes time, but you keep doing the words the same way and it comes faster and faster.

Jose: Yeah, I know. Some come easier than others. Some come harder, but I am going to check it out. If you don't use words, you don't know how to pronounce them. Some words I heard before; some words I never heard.

The rate of acquisition of reading skills can be influenced by many factors including cultural background, the strength of the native language, home language, environment, personal attitudes and linguistic aptitude.

What Learning Theories Say Concerning the Process Of Reading Instruction.

All learning theories agree that a stimulus can be activated by a cue. A stimulus has properties. These properties, which have a great influence on the type of process that can be or is carried out by humans, include speed of identification and different systems of information processing. Auditory skills are developed earlier than reading skills and a period of time should be provided for semantic-auditory development. Auditory stimuli include hearing, listening and comprehension. It encompasses auditory acuity, auditory discrimination, auditory learning of auditory sounds and

sentences, auditory comprehension and auditory memory. Many disabled readers exhibit tonal confusion, a weakness in their mastery of auditory skills.. Kolson (1963) found that many slow learning pupils apparently need the help of actually hearing the specific sound in more direct association with its symbol.[54]

Learning theories generally are divided into stimulus-response theories and field of cognition theories. The behavioral model (stimulus-response) holds that all learning is fundamentally a connection between a stimulus and a response, S--R bond. Learning is defined as the acquisition of new behavior patterns or the changing of behavior by the strengthening or weakening of old patterns as a result of practice or training. Reinforcement deals with conditions that, in fact , take place. It is through shaping that the very fine discriminations required in reading are produced through the process of chaining and summing up of individual acts. Skinner (1957) stated that elaborate sequences of behavior, like those required in reading, are built up.[55]

Retrieval is pattern completion. Pattern completion is the matching of general category network in long term memory, including the attributes and features of the cue, and the target item being searched. The cue must be part of the total category network. It is rare that a pattern is identified on the basis of a single feature . Many features must be taken into account to identify a common pattern, such as a word, because, as a rule, many features are shaped by different patterns. These invariant features are picked up by the perceptual system for processing because, among other things, they differentiate in the classes of bases that words or system processes in varied features hold, a class of pattern pairs and the distinctive features which differentiate the impulse within that group.[56]

Compared to previous years, recent NAEP reading assessments are

utilizing a greater variety of reading materials, for example, science fiction, newspaper articles, and fantasy to attempt to assess students' mental processing of complex passages of information. Skills at identifying, locating, or confirming information and analyzing, interpreting and evaluating what has been read, and measuring students' reading strategies and attitudes about reading are some of the skills tested.[57]

The freshmen in English 101 were being guided and supported in their faltering efforts to notice in reading passages such cues as locations, names, phrases, events, dates, sequencing details, identification of relationships, recognition of emotions, reactions and selecting. Pete summed up the efforts being expended by the students:

> We have a library in the back of the room where we read. I read someting about Malcolm X and why he went to jail. It's a biography. Malcolm was a smart man. I say reading is all in your mind . I don't know how it gets there. But a friend of mine said,'If you want to learn, you've got to study. How it gets there, the information, and how it stays there, how your mind can rememer and keep all this knowlege in the mind, no one knows. You do it and it stays in there, like a computer. Once you get it, you got it. You find it, the mind, keeps on absorbing like a sponge. You never stop learning.

Footnotes

[1]Mann, D. (1985, September). Action on dropouts. Educational Leadership. 43(1). 192-202.

[2]Sudzina, M. (1987). An investigation of the relationship between the reading styles of second graders and their achievement in three different basal reader programs. Unpublished doctoral dissertation. Temple University.

[3]Morgan, W.R. (1984). The high school drop-out in an over-educated society. Columbus Center for Human Resource Research. Ohio State University. (mimeographed).

[4]Catterall, W. (1985). On the social costs of dropping out of school. Stanford, CA: Stanford Education Policy Institute: Stanford University.

[5]DeBaer, J. (1988, May). What does research reveal about reading and the high school student? English Journal, XLVII, 54-60.

[6]Anderson, R. (1987, February). Shaping up the shop. How school organization influences teaching and learning. Educational Leadership. 44, 45-49.

[7]Smith, F. (1975). Understanding reading: A psycholinguistic analysis of reading and learning to read. New York, NY: Holt, Rinehart & Winston.

[8]Glaser, r. (Ed.). (1978). Advances in instructional psychology. (Vol. 1). NJ: Lawrence ERlbaum Associates.

[9]Piaget, J. (1976). The language and thought of the child. NY: Penguin.

[10]Bruner, J. (1983). In search of mind. NY. Harper & Row.

[11]Kagan, J.(1980, December). Jean Piaget's contributions. Phi Delta Kappan 90-94

[12]Harris, A. (1977, October). Lateral dominance, directionality and reading disability. Journal of Psychology, 44. 383-94.

[13]Anderson, R.C., E. H. Hiebert, J.A. Scott and I.A. Wilkinson. Becoming a nation of readers: The report of the Commission on Reading. Washington,D.C.: National Institute of Education, 1984.

[14]Wixson, K., C.W. Peters, E.M. Weber et al. (April, 1987). New directions in statewide reading assessment," The Reading Teacher. 750.

[15]Anderson et al. p. 17-18; 99; 101.

[16]Doehring, d. (1968). Patterns of improvement in specific reading disability. Bloomington, IN: Indiana University Press.

[17]Cooper, J. & Worden, P. (1983). The classroom reading program in the elementary school. NY: Macmillan.

[18]Benedict, R. Snell, r. & Nolle, d. (1987, March). Enterprise High: Helping school drop-outs become self-supporting adults.Educational Leadership, 44, 25=31.

[19]Harris, A.. (1977, October). Op. cit. 585-94.

[20]Gersten, R. & Keating, T. (1987, March). Long term benefits from direct instruction.Educational Leadership, 44, 62-68.

[21]Cardenas, J. & McCarty F.J. (1985, September). Children at risk. Educational Leadership, 43, 38-45

[22]Carroll, J. & Chall, J. (1975). Toward a literate society: The report of the committee on Reading of the National Academy of Education. NY: McGraw-Hill.

[23]Masland, R. (1973, February 3). Mathematical aspects: State of the art. Where are we in learning disabilities. Paper presented at the Second Western National Conference sponsored by the Association for Children with Learning Disabilities and the California Association for Neurologically Handicapped Children.

[24]Field, E. (1986, May 15). Children's reading explored. New York Times. 24

[25]Gibson, E.J. & Levin, H. (1975). The psychology of reading. Cambridge, MA: M.I.T. Press.

[26]Smith, R. & Johnson, D. (1975).Teaching children to read. Reading, MA : Addison-Wesley.

[27]Carroll, J. & Chall, J. (1975). Op. cit.

[28]Durkin, D. (1983). Strategic readers are better comprehenders. NY: Teachers College Press.

[29]Valencia, S. & Pearson, P.D. (1987, April). Reading assessment: Time for a change. The Reading Teacher: 726-32.

[30]Anderson et al. pp. 97; 100-101.

[31]Squire, J.R.(1987, April). A special issue on the state of assessment in reading. The Reading Teacher. 724-25.

[32]Bussis, A.M. & Chittendon, E.A. (1987, March). Research currents: What the reading tests neglect Language Arts. 303.

[33]Carbo, M. (1987, February). Reading styles research: What works isn't always phonics, Phi Delta Kappan: 431-35.

[34]Duane, A. & Money, J. (1969, May). "Reading disability and the problem of direction sense."The Reading Teacher, 20, 404-409.

[35]Reed, S. (1985, September 22). Students make tough graders. New York Times Education Watch. 35.

[36]Durkin, D. (1968). Phonics and the teaching of reading. NY: Teachers College Press.

[37]Artley, A. (1944). A study of certain relationships existing between general reading comprehension and reading comprehension in a specific subject matter area.Journal of Educational Research, 37, 464-73.

[38]Bormuth, J. R.(1969). An operational definition of comprehension instruction. In Kenneth S. Goodman & James T. Fleming (eds.). Psychollinguistics and the teaching of reading. Newark, DE: International Reading Association. 48-60.

[39] Ausubel, D. & Ausubel, P. (1963). Ego development among segregated negro children. In Harry Passow (ed.). Education in depressed areas. NY: Bureau of Publications, Teachers College, Columbia UNiversity

[40] Goodman, K. (1975). The reading process. In S.S. Smiley & J.C. Towner, (eds.). Language and reading. Bellingham: Western Washington State College.

[41]Mead, G. (1962). Mind, self and society. IL: University of Chicago Press.
[42]Bormuth, J. R.(1969) op. cit..
[43] Sylvester, E. & Kurst M. (1943). Psychodynamic aspects of reading problems . American journal of orthopsychiatry. 13, 69-76.
[44]Stolz, J. (1980, September 11). Those turned off turned-out truants. New York Daily News. 44
[45]Graham, E. (1952). Wechsler-Bellevue and WISC scattergrams of unsuccessful readers. Journal of consulting psychology. 16, 235-241.
[46]Fernald, G.M. (1943) Remedial techniques in basic school subjects. NY: McGraw-Hill.
[47]Fries, C. (1963). Linguistics and reading. NY: HoLt, Rinehart & Winston.
[48]Auckerman, R. C. (1971) Approaches to beginning reading. NY John Wiley & Sons, Inc.
[49]Anderson et al. Op. cit. 7.
[50]Carbo, M. (1987, February). Op.cit.: 431-35.
[51]Thorndike, E. (1934, October). Improving the ability to read. Teachers College Record, 229-241.
[52]Biggins, C.M. & Sainz, J. **Breakthrough in basic reading/writing skills for secondary developmental level students**. **More words and ideas vocabulary building book**. **(in progress)**
[53] Mann, D. (1985, September). Action on dropouts. Op.cit.
[54]Kolson, C. & Kalygen, G. (1963).Clinical aspects of remedial reading. Springfield, IL: Charles C. Thomas, Publishers.
[55]Skinner, B.F. (1957) Verbal behavior. NY: Appleton-Century-Crofts.
[56]Estes, H›M. (1976, June). Attention and Memory. In H.M. Estes (Ed.). Handbook of Learning and Cognitive Processes.(Vol. 4) 31-45. LEA.
[57]Reading objectives: 1986 and 1988 assessments: Princeton, NJ: National Assessment and Educational Progress. 6.